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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID B. LANTZ and MARK W. DYKGRAAF

Appeal 2008-0004
Application 10/659,816
Technology Center 3600

Decided: March 28, 2008

Before MURRIEL E. CRAWFORD, JENNIFER D. BAHR, and JOHN C.
KERINS, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

David B. Lantz and Mark W. Dykgraaf (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 28-42, all of the claims pending in the application. Appellants, however, limit their appeal to claims 32, 33, 34, 40, 41, and 42 (Appeal Br. 2). The withdrawal of the

appeal as to claims 28-31 and 35-39 operates as an authorization to cancel those claims from the application. *Manual of Patent Examining Procedure (MPEP)* § 1215.03. Accordingly, only the appeal of the rejection of claims 32-34 and 40-42 is before us for review. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

The Invention

Appellants' claimed invention is directed to a bagging module for use in a checkout system (Specification 1:7-8). Claim 33, which is representative of the claimed invention, and claim 28 from which it depends, read as follows:

28. A checkout system comprising:
- a front module having an upper support surface for supporting articles;
 - a rear module having an upper support surface for supporting bags filled with articles; and
 - a bagging module located between the front and rear modules, the bagging module comprising a bag support engageable with an upper part of a bag for holding the bag in an upright and open condition for receiving articles, said bag support being movable horizontally from a position at which a bag held by the bag support is located adjacent a clerk on one side of the checkout system to a position in which the bag is delivered to a customer on the other side of the checkout system;
- wherein said bag support is vertically movable downward, from an operative position wherein a bag may be supported by said bag support in an upright and open condition for receiving article, to a stowed position wherein an uppermost portion of said support is below said

upper support surfaces of said front and rear modules.

33. The checkout system according to claim 28, wherein the upper support surface of the front module is a movable conveyor for transporting articles, and wherein said movable conveyor is extendible over said bagging module when said bag support is moved to its stowed position.

The Rejection

The Examiner relies upon the following as evidence of unpatentability:

Hoar	US 5,131,499	Jul. 21, 1992
Wike, Jr. (Wike)	US 6,427,915 B1	Aug. 6, 2002

Appellants seek review of the Examiner's rejection of claims 32-34 and 40-42 under 35 U.S.C. § 103(a) as unpatentable over Wike in view of Hoar.¹

Rather than reiterate in their entirety the respective positions of the Examiner and Appellants with regard to the rejection, we make reference in our decision to the Examiner's Answer (mailed March 14, 2006) and Appellants' Appeal Brief (filed November 25, 2005).

¹ The Examiner does not re-state the rejection under 35 U.S.C. § 103(a) based on the combination of Wike, Nguyen (US 6,793,043 B2) and Hoar set forth on page 2 of the Final Rejection (mailed June 23, 2005). Therefore, we treat this rejection as having been withdrawn by the Examiner.

THE ISSUE

The issue presented in this appeal is whether it would have been obvious to provide a vertically-adjustable, rotatable bag carousel 14, as taught by Hoar, in place of the bagwells 60 and 62 of Wike.

FINDINGS OF FACT

FF1 Wike teaches a checkout system comprising:

- (a) a front module (pre-scan area 12) including an input belt 22 (col. 6, ll. 55-59; fig. 1);
- (b) a rear module (bagging counter 66) (col. 12, l. 51);
- (c) self-service and assisted bagwells 60 and 62 provided to accommodate one or more grocery bags (col. 12, ll. 19-23; figs. 1, 2, 12, 13); and
- (d) a takeaway belt mechanism 56 having takeaway belt 58, the takeaway belt 58 being slidable between a retracted position (fig. 13) and an extended position (fig. 12) wherein it extends between the pre-scan area 12 and the bagging counter 66 (col. 12, ll. 16-18 and 45-56). When takeaway belt 58 is in its retracted position, an overhead access opening 62a associated with the assisted bagwell is exposed in order to allow the checkout clerk to place an item into a grocery bag within the assisted bagwell (col. 12, ll. 56-62).

FF2 When takeaway belt 58 is in the extended position (fig. 12), the bag support arms (not numbered) and the panel on which they are supported are tilted downwardly. When takeaway belt 58 is in the retracted position (fig. 13), the bag support arms extend horizontally

- and the panel on which they are supported is oriented vertically.
Wike does not explain why the bag support arms are tilted downwardly when takeaway belt 58 is extended.
- FF3 Appellants concede that the bag support arms and the panel on which they are supported appear to be tilted downwardly “possibly so that the panel itself is moved out of the way of the take-away belt mechanism 58” (Appeal Br. 11).
- FF4 Hoar teaches a rotatable bagging carousel 14, for use at a retail checkout cash register or the like (col. 1, ll. 5-6), provided with a vertical height adjustment feature to accommodate different checkout counter heights (col. 2, ll. 2-68).
- FF5 Hoar teaches that the object of Hoar’s invention is to use the bagging carousel and bags at a checkout station or cash register “to significantly speed and facilitate the store checkout procedure and provide other noteworthy benefits” (col. 1, ll. 33-38).
- FF6 Hoar appears to show a range of vertical adjustment permitting positioning of the bagging carousel 14 (dotted lines) so that the tops of the panels thereof extend above the top of the checkout counter 12 (fig. 3).

PRINCIPLES OF LAW

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007).

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740. The relevant question is whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.*

“A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *Id.* at 1742. Moreover, the conclusion of obviousness may be made from “common knowledge and common sense” of the person of ordinary skill in the art. *See In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969).

While there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 127 S.Ct. at 1741.

DISCUSSION

Appellants state that the claims on appeal are grouped together (Appeal Br. 6). Appellants urge that “[i]ndependent claim 32 is the broadest, and suitable as a single claim on which this appeal can be decided” (*id.*) Appellants are wrong on both counts. First, claim 32 is not an independent claim.² Claim 32 depends from claim 31, which depends from independent claim 28. Second, claim 32 is not clearly the broadest claim involved in this appeal. Claim 32 recites that when in the operative position, at least part of the bag support occupies space which is occupied by the extendible member when the extendible member extends over the bagging module. Claim 33, which depends directly from claim 28, on the other hand, does not include that limitation.

In accordance with 37 C.F.R. § 41.37(c)(1)(vii) (2007), we select claim 33 as the representative claim to decide this appeal, with claims 32, 34, and 40-42 standing or falling with claim 33.

In rejecting the claims, the Examiner finds that Hoar lacks a rotating (i.e., horizontally moveable) bag support, but determines that it would have been obvious to use the height-adjustable rotating bag support of Hoar in place of Wike’s non-rotating bag supports (Answer 3 and 4). The Examiner explains that the suggestion or motivation for doing so would have been to “significantly speed and facilitate the store checkout procedure and provide

² Appellants attempted to put the limitations of dependent claims 31 and 32 and 39 and 40 into independent claims 28 and 35, respectively, subsequent to the Final Rejection in an amendment filed August 22, 2005, but the Examiner refused entry of that amendment (Advisory Action mailed August 30, 2005).

other noteworthy benefits,” as well as to make the height of the bag support adjust to the height of the conveyor surface (Answer 4).

Appellants argue that Wike's bag support arms are presumably at the optimum height for holding bags to be filled, and are situated well below the level of the bottom of the takeaway belt mechanism 58 and set-aside shelf 70 (Appeal Br. 8). Consequently, according to Appellants, “[t]here is no reason to suppose that an adjustment of the height of the bag-supporting arms is necessary in order to provide clearance for the take-away belt mechanism” (*id.*)

The two reasons articulated by the Examiner for providing a vertically-adjustable, rotatable bagging carousel as taught by Hoar in place of the bagwells 60, 62 taught by Wike find clear support in Hoar (FF5 and FF4). A person of ordinary skill in the art would have immediately appreciated that a rotatable bagging carousel that significantly speeds and facilitates store checkout procedures as taught by Hoar would be a desirable feature in the checkout system of Wike. Likewise, regardless of whether there is a need for vertical adjustment of the bagging carousel to selectively position it in either an operative position wherein it would interfere with takeaway belt 58 if takeaway belt 58 were slid to the extended position (fig. 12) and a lowered position wherein it provides clearance for takeaway belt 58 in its extended position, a person of ordinary skill in the art would have immediately recognized that vertical adjustment of the bagging carousel to accommodate different heights of checkout counters would be desirable to permit the bagging carousel to be incorporated or retrofitted into a variety of different checkout systems. Moreover, the substitution of the vertically-adjustable, rotatable bagging carousel taught by Hoar for the bagwells 60, 62

of Wike would not appear to be uniquely challenging to a person of ordinary skill in the art, and Appellants have not argued, much less shown, that the substitution would be beyond the technical grasp of a person of ordinary skill in the art.

For the above reasons, Appellants' arguments do not persuade us that the modification of Wike proposed by the Examiner would not have been obvious.

Appellants also argue that even if the vertically-adjustable, rotatable bagging carousel of Hoar were provided on the checkout system of Wike, "it is speculation at best to conclude that the result would be a system in which the carousel height could be adjusted through a range in which it can alternatively block and clear the extendible bridge" (Appeal Br. 9-10). This argument is not persuasive of reversible error in the Examiner's rejection, because representative claim 33 does not require a system in which the carousel height could be adjusted through a range in which it can alternatively *block* and clear the extendible bridge.³ Claim 33 merely requires that the movable conveyor be extendible over the bagging module when the bag support is moved to its stowed position; claim 33 does not require that the bag support be movable to a position in which it blocks the extendible conveyor or bridge.

Appellants' argument that it would be speculative to conclude that the modification proposed by the Examiner would result in a system "in which the carousel height could be adjusted through a range in which it can alternatively block and clear the extendible bridge" is directed to claim 32,

³ Limitations not appearing in the claims cannot be relied upon for patentability. *In re Self*, 671 F.2d 1344, 1348 (CCPA 1982).

the claim Appellants urge should be the representative claim to decide this appeal. Therefore, in the interest of administrative efficiency and fairness to Appellants, we address this argument within the context of claim 32. For the reasons that follow, we do not agree with Appellants that it would be speculative to conclude that the result of the combination proposed by the Examiner would be the invention recited in claim 32.

First, we note that the stated objective of the vertical adjustment feature of Hoar's bagging carousel is to accommodate different checkout counter heights (FF4). Common sense would dictate that such a vertical adjustment mechanism would be designed to have sufficient range to permit adjustment between a height slightly lower than the lowest conventional checkout counter and a height slightly higher than the highest conventional checkout counter, to accommodate tolerances and maximize applicability of the bagging carousel. In any event, a person of ordinary skill in the art would appreciate that Hoar's bagging carousel would have a range of vertical adjustability extending to a height exceeding that of the checkout counter height, hence interfering with the bottom of the takeaway belt 58, if installed in a checkout system having a relatively low or intermediate conventional checkout counter height. We further observe that Hoar appears to contemplate a range of vertical adjustment permitting positioning of the bagging carousel 14 so that the tops of the panels thereof extend above the top of the checkout counter (FF6).

Second, we find that a person of ordinary skill in the art would have inferred from Wike's illustration (fig. 12) of the bag support arms being tilted down when the takeaway belt 58 is extended, in contrast to the horizontal bag support arm position when takeaway belt 58 is in the

retracted position (fig. 13) (FF2), that some portion of the bag support, either the arms or the panel to which they are attached and with which they must tilt, would interfere with the takeaway belt 58 if not so tilted. Appellants concede that this is a possibility (FF3). Thus, the concept of a bag support stow position providing clearance for the extension of takeaway belt 58 and an operative bag support position wherein clearance is not provided, is taught, or at least suggested, by Wike.

For both of these reasons, we find that a person of ordinary skill in the art would have found the arrangement recited in claim 32, wherein, in its operative⁴ position, at least part of the bag support occupies space occupied by the extendible member (takeaway belt 58) when the extendible member extends over the bagging module, to be a predictable, and thus obvious, variation.

In light of the above, Appellants' arguments do not demonstrate reversible error in the Examiner's rejection of claims 32-34 and 40-42 as unpatentable over Wike in view of Hoar. We thus sustain the rejection.

CONCLUSION

The decision of the Examiner to reject claims 32-34 and 40-42 is sustained. Appellants' withdrawal of claims 28-31 and 35-39 from appeal operates as an authorization to cancel those claims from the application.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

⁴ Any achievable position of the bag support may be considered the "operative position."

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Application 10/659,816

AFFIRMED

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